

MOLDED FOAM PLUGS, PLUG SYSTEMS AND METHODS OF USING SAME

ABSTRACT

The present invention is directed to plugs, plug systems and methods for using the plugs and systems in subterranean wells. The plugs comprise an inner mandrel and an outer sleeve formed of a compressible foam. The plug systems include an assembly comprising a top plug and a bottom plug having foam outer sleeves. The plug systems further comprise a float valve into which the assembly fits. In the method, the bottom plug is deployed ahead of the top plug to separate a second fluid from a first fluid and wipe the inside of the pipe string clean of the first fluid. The top plug is used to wipe the inside of the pipe string clean of the second fluid and stop the displacement of the second fluid into the annulus between the casing string and the well bore.